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Remarks

Applicant respectfully requests reconsideration of this application as amended.

Claims 1, 4, 6, 8, 10, 13, 15-18, 22-24, 28, and 29 have been amended. Claims 3, 5, 12, 14, 20, 21, 26, and 27 have been cancelled. No claims have been added. Therefore, claims 1, 2, 4, 6-11, 13, 15-19, 22-25, 28, and 29 are presented for examination.

**35 U.S.C. §103(a) Rejection**

Claims 1-3, 5-12 and 14-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sprangle and Patt's "Facilitating Superscalar Processing via a Combined Static/Dynamic register Renaming Scheme," ©1994 (hereinafter referred to as "Sprangle") in view of Arora et al. (U.S. Patent No. 5,832,260) (herein referred to as "Arora"). Applicant submits that the present claims are patentable over Sprangle in view of Arora.

Briefly, Sprangle discloses a superscalar implementation of a conventional instruction set architecture (ISA). Arora discloses a processor micro-architecture for efficient processing of instructions in a program including a program flow control instruction.

Claim 1, as amended, recites:

A method, comprising:

decoding an original instruction into a complementary-predicated pair of instructions by sending a hint to a register renaming circuit, the complementary-predicated pair of instructions including a predicate-positive instruction and a predicate-negative move instruction;

sequencing the predicate-positive instruction and the predicate-negative move instruction for out-of-order execution;

renaming, by the register renaming circuit, both a first destination register of the predicate-positive instruction and a second destination register of the predicate-negative move instruction to a same physical register, wherein the hint to permit the renaming to the same physical register; and

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retiring either the predicate-positive instruction or the predicate-negative move instruction responsive to a predicate value associated with both instructions.

Applicant submits that Sprangle does not disclose or suggest renaming, by the register renaming circuit, both a first destination register of the predicate-positive instruction and a second destination register of the predicate-negative move instruction to a same physical register, wherein the hint to permit the renaming to the same physical register, as recited by claim 1. Applicant can find no disclosure or suggestion of this feature anywhere in Sprangle. The Final Office Action cites Sprangle at Section 6 and Tables 4-6 as disclosing the renaming feature, as well as the hint feature, of claim 1. (Final Office Action mailed 11/15/06 at pg. 3, pt. 5(a)(ii) & pg. 4, pt. 9.) However, applicant can find no discussion of such a feature at these cited portions of Sprangle. The Final Office Action states that because “the two resulting instructions write to the same tag and the remaining tag is maintained for dependent instructions...there must be some identification, i.e. hint, showing the dependency when it is sent to the renaming circuit.” (Id. at pg. 4, pt. 9.) However, Sprangle does not disclose this assumed hint, and applicant submits that it would not be obvious to one skilled in the art. As a result, Sprangle does not disclose or suggest the cited feature of claim 1.

Applicant further submits that Arora also does not disclose or suggest renaming, by the register renaming circuit, both a first destination register of the predicate-positive instruction and a second destination register of the predicate-negative move instruction to a same physical register, wherein the hint to permit the renaming to the same physical register. The Office Action does not rely on Arora to disclose this feature. In addition, applicant can find no disclosure or suggestion of this feature anywhere in Arora. Therefore, Arora does not disclose or suggest the cited feature of claim 1.

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As neither of Sprangle nor Arora individually disclose or suggest the cited feature of claim 1, any combination of Sprangle and Arora also does not disclose or suggest such a feature. Therefore, claim 1, as well as its dependent claim is patentable over Sprangle in view of Arora.

Independent claims 10, 18, and 24 also recite, in part, renaming, by the register renaming circuit, both a first destination register of the predicate-positive instruction and a second destination register of the predicate-negative move instruction to a same physical register, wherein the hint to permit the renaming to the same physical register. As discussed above, Sprangle in view of Arora does not disclose or suggest such a feature. Therefore, claims 10, 18, and 24, as well as their respective dependent claims, are patentable over Sprangle in view of Arora for the reasons discussed above with respect to claim 1.

Claims 4 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sprangle and Arora , as applied to claim 3 above, and further in view of Rodgers et al. (U.S. Patent No. 6,496,925) (herein referred to as “Rodgers”). Applicant submits that the present claims are patentable over Sprangle and Arora even in view of Rodgers. Claims 4 and 13 depend from independent claims 1 and 10, respectively. As discussed above, claims 1 and 10 are patentable over Sprangle in view of Arora. Rodgers does not remedy the deficiencies of Sprangle and Arora in light of claims 1 and 10. Therefore, claims 4 and 13 are patentable over Sprangle and Arora, further in view of Rodgers.

Applicant respectfully submits that the rejections have been overcome and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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